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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/676,479	10/01/2003	Kenneth C. Shuey	ABME-0806/B970162	7529
23377 7590 10/03/2007 WOODCOCK WASHBURN LLP CIRA CENTRE, 12TH FLOOR 2929 ARCH STREET PHILADELPHIA, PA 19104-2891			EXAMINER BORISSOV, IGOR N	
			ART UNIT 3628	PAPER NUMBER
			MAIL DATE 10/03/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

10/676,479

**Applicant(s)**

SHUEY ET AL.

**Examiner**

Igor N. Borissov

**Art Unit**

3628

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 July 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 17-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 17-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 07/27/2007 has been entered.

### ***Response to Amendment***

Amendments received on 07/27/2007 is acknowledged and entered. Claims 17 - 22 have been amended. Claims 17-22 are currently pending in the application.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 17-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson et al. (US 5,963,146) in view of Suzuki et al. (US 5,892,912) and further in view of Martinez (US 4,513,415).**

Johnson et al. (Johnson) teaches an automated meter reading system comprising a plurality of utility meters for measuring and recording metered data; a plurality of nodes (cell nodes), each node communicating with a number of designated meters to read the meter data; a plurality of gateways (intermediate data terminal), each gateway communicating with a number of the nodes to receive the meter data; a data network

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(WAN) interfaced to communicate with the plurality of gateways, and a host server (Central Data Terminal) interfaced with the data network to receive the meter data read from the gateways, wherein said meters are grouped in a plurality of cells, each cell having a node; and wherein a plurality of nodes are grouped to be assigned to a plurality of gateways; and wherein said host server maintaining a topology database, wherein said topology database comprising:

first electronic data representative of meter assignments to at least one node;  
second electronic data electronically keyed to said first electronic data and representative of node assignments to at least one gateway;

third electronic data electronically keyed to the second electronic data for grouping together a plurality of nodes to define groups of noninterfering nodes based at least in part on the node assignments; and

forth electronic data electronically keyed to the second electronic data for grouping together a plurality of gateways to define sets of noninterfering gateways (Figs. 1, 6, 12, 13; C. 3, L. 45-65; C. 5, L. 12-29). Johnson explicitly addresses the interfering problem and provides a solution to avoid said problem (C. 8, L. 33-42; C. 9, L. 7-21).

Johnson does not specifically teach the specifics of data structure defining association of groups of nodes.

Suzuki et al. (Suzuki) teaches an automated system for managing a plurality of nodes on a network, comprising a plurality of network nodes (meters) communicating with a designated switching hub (node), a plurality of switching hubs communicating with servers over the WAN, wherein said servers provide resources to the individual switching hubs. In use, the VLAN server stores MAC addresses of the nodes connected to the ports of the individual switching hubs, and VLAN identifiers specifying groups to which the respective nodes etc. belong. The file server stores document or data files. Each of the servers also is a node having a communication function, like the other nodes, and has a MAC address associated therewith and a VLAN identifier specifying a groups to which it belongs (C. 2, L. 47-65; C. 4, L. 55-65).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Johnson to include the specifics of data structure defining association of groups of nodes, as disclosed in Suzuki, because it would advantageously allow to facilitate the management process of the network, thereby enhancing the efficiency of the system performance. Furthermore, so as this is a case where the improvements are no more than the predictable use of prior art elements according to their established functions, no further analysis for "motivation to combine" is required by the Examiner. *KSR*, 127 S.Ct. at 1740, 82 USPQ2d at 1396.

Furthermore, the "functionalities" recited in the claim are not positively claimed, but introduced into the claim via a "wherein" clause. MP E P 2106 (II) (C) states: *"Language that suggests or makes optional but does not require steps to be performed or does not limit a claim to a particular structure does not limit the scope of a claim or claim limitation."* Also, Claims Directed to an Apparatus must be distinguished from the prior art in terms of structure rather than function, *In re Danly* 263 F.2d 844, 847, 120 USPQ 528-531 (CCPA 1959). A claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. *Ex parte Masham*, 2 USPQ2d 1647 (bd Pat. App. & Inter. 1987). Same reasoning are applied to the remaining claims.

Claims 18-21, see reasoning applied to claim 17.

Furthermore, as per claim 18, the claim includes the following language: *... wherein said host server stores information related to the topology of gateways, nodes, meters, and their respective interconnections and/or interfaces"*, which appears to recite an intended use of the system, and does not recite structural elements. Therefore, said language is given no patentable weight. MP E P 2106 (II) (C) states: *"Language that suggests or makes optional but does not require steps to be performed or does not limit a claim to a particular structure does not limit the scope of a claim or claim limitation."* Claims Directed to an Apparatus must be distinguished from the prior art in terms of structure rather than function, *In re Danly* 263 F.2d 844, 847, 120 USPQ 528-531 (CCPA 1959).

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A claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. *Ex parte Masham*, 2 USPQ2d 1647 (bd Pat. App. & Inter. 1987). Same reasoning are applied to the remaining claims.

### ***Response to Arguments***

Applicant's arguments filed 07/27/2007 have been fully considered but they are not persuasive.

Applicant argues that the prior art does not teach the following features of the host server of the system: "the host server maintain[s] a topology database that holds... third electronic data ... for grouping together a plurality of nodes to define groups of noninterfering nodes based at least in part on the node assignments; and fourth electronic data ... for grouping together a plurality of gateways to define sets of noninterfering gateways."

In response to this argument, the examiner points out that said "supporting" feature of the server, specifically "grouping together a plurality of nodes" and "grouping together a plurality of gateways" is not recited in the claim in such a way as to imply the embedded functionality of the server supporting said feature. As currently recited, claim language defines the system (apparatus) as having the following structural elements: a plurality of utility meters; a plurality of nodes, each node communicating with a number of designated meters to read the meter data; a plurality of gateways, each gateway communicating with a number of the nodes to receive the meter data; a data network (WAN) interfaced to communicate with the plurality of gateways; and a host server (configured to) maintain[ing] a topology database. Further, there is a recitation of the content of said database, without any indication of functionality for which said server

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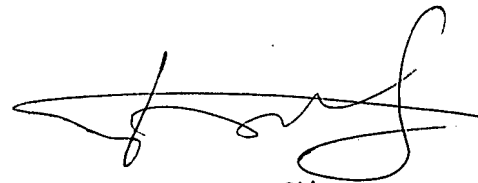
has to be configured to implement the applicant's invention. Furthermore, there is no indication in the dependent claims that said server is configured to access said database, and, using the stored data, to implement the functionality the applicant is arguing about.

As per grouping together a plurality of nodes and gateways to implement the non-interfering data transfer, the combination does, in fact, teach said features (see a discussion above).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Igor Borissov whose telephone number is 571-272-6801. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Hayes can be reached on 571-272-6708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



IGOR N. BORISSOV  
PRIMARY EXAMINER

IB

09/18/2007